Hypothalamic & Pituitary Hormones, Thyroid & Antithyroid Drugs

001. Hormones are:

**a) Products of endocrine gland secretion**

b) Mediators of inflammatory process

c) By-products of tissue metabolism

d) Product of exocrine gland secretion

002. Select an endocrine drug which is an amino acid derivative:

a) Insulin

b) Hydrocortisone

c) Calcitonin

**d) Thyroxine**

003. Select an endocrine drug which is a peptide derivative:

**a) Oxitocin**

b) Prednisolone

c) Nandrolone

d) Progesterone

004. Select an endocrine drug which is a steroidal derivative:

a) Gonadorelin

b) Insulin

c) Levothyroxine

**d) Hydrocortisone**

005. Hormone analogues are:

a) Naturally occurring substances but slightly different from hormones

b) Naturally occurring substances but less efficacious than hormones

c) Naturally occurring substances having the same structure but different pharmacological properties than hormones

**d) Synthetic compounds, which resemble the naturally occurring hormones**

006. Regarding the mechanism of action of hormones, indicate the FALSE statement:

**a) Hormones interact with the specific receptors in the wall of the cells**

b) Cyclic AMP acts as a second messenger system

c) They stimulate adenylcyclase enzyme

d) Many hormones owe their effect to primary actions on subcellular membrane.

007. Hypothalamic and pituitary hormones (and their synthetic analogs) have pharmacologic applications in three areas,

EXCEPT the following:

a) As replacement therapy for hormone deficiency states

b) As drug therapy for a variety of disorders using pharmacologic doses to elicit a hormonal effect that is not present at

physiologic a blood levels

c) As a diagnostic tool for performing stimulation tests to diagnose hypo- or hyperfunctional endocrine states

**d) As food supplements**

008. Which of the following hormones is produced by the hypothalamic gland?

**a) Growth hormone-releasing hormone (GHRH)**

b) Follicle-stimulating hormone (FSH)

c) Aldosterone

d) Estradiol

009. Which of the following hormones is produced by the anterior lobe of the pituitary?

a) Thyrotropin-releasing hormone (TRH)

b) Corticotropin-releasing hormone (CRH)

**c) Growth hormone (somatotropin, GH)**

d) Growth hormone-releasing hormone (GHRH)

010. The posterior pitutary does NOT secret:

a) Vasopressin

b) Oxytocin

**c) Growth hormone**

d) All of the above

011. Which of the following organs is a target for prolactin?

a) Liver

b) Adrenal cortex

c) Thyroid

**d) Mammary gland**

012. Which of the following organ hormones is a target for growth hormone (somatotropine, GH)?

a) Glucocorticoids

**b) Insulin-like growth factors (IGF, somatomedins)**

c) Triiodthyronine

d) Testosterone

013. All of the following statements about growth hormone are true, EXCEPT:

a) It may stimulate the synthesis or release of somatomedins

b) Low levels of insulin-like growth factor (IGF)-1 are associated with dwarfism

**c) Hypersecretion can result in acromegaly**

d) It is contraindicated in subjects with closed epiphyses

014. Correct statements about adrenocorticotropic hormone (ACTH) include all of the following, EXCEPT:

a) Endogenous ACTH is also called corticotropin

b) ACTH stimulates the synthesis of corticosteroids

c) ACTH is most useful clinically as a diagnostic tool in adrenal insufficiency

**d) The oral route is the preferred rout of administration**

015. The hypothalamic control exists for the thyroid gland. This consideration is:

**a) True**

b) False.

016. Indications of bromocriptine are following, EXCEPT:

a) Prolactin-secreting adenomas

b) Amenorrhea-Galactorrhea

**c) Prolactin deficiency**

d) Acromegaly

017. Currently used dopamine agonists decreasing pituitary prolactin secretion are following:

a) Bromocriptine

b) Cabergoline

c) Pergolide

**d) All of the above**

018. Indications of oxitocin are following:

a) Labor and augment dysfunctional labor for conditions requiring early vaginal delivery

b) Incompleted abortion

c) For control of pospartum uterine hemorrhage

**d) All of the above**

019. Indications of vasopressin are following:

a) Diabetes mellitus

b) Hypertension

**c) Pituitary diabetes insipidus**

d) Incompleted abortion

020. Vasopressin possesses the following:

**a) Antidiuretic property**

b) Vasodilatation property

c) Release of a thyroid hormone into the plasma

d) Diuretic property

021. Oxytocin produces the following effects:

a) It causes contraction of the uterus

b) It assists the progress of spermatozoa into the uterine cavity

c) It brings about milk ejection from the lactating mammary gland

**d) All of the above**

022. Vasopressin causes a pressor effect by:

a) Releasing noradrenaline from the nerve terminals

b) Releasing and activating renin-angiotensin system

**c) A direct action on smooth muscles of the blood vessels**

d) All of the above mechanisms

023. Q1. Which ONE of the following statements is true for Hypothyroidism

**A) It is a syndrome resulting from deficiency of thyroid hormones and is manifested largely by a reversible slowing down of all body functions**

B) It is the clinical syndrome that results when tissues are exposed to high levels of thyroid hormone

C) It is condition which demands destruction of thyroid tissue by Radioiodine (I131)

D) The treatment of choice is other than replacement therapy

024. Which of the following hormones is produced by the thyroid gland?

**a) Thyroxine**

b) Thyroid-stimulating hormone

c) Thyrotropin-releasing hormone

d) Thyroglobulin.

025. Thyroid stimulating hormone regulates the following:

a) Iodine uptake

b) Biosynthesis of iodothyroglobulin

**c) Release of thyroid hormone into the plasma**

d) All of the above.

026. Thyroid hormones produce various pharmacological effects. Indicate the wrong statement(s).

**a) Decline of the basal metabolic rate in the body**

b) Increase in the rate and force of contraction of the heart

c) Increase in the blood cholestrol level

d) Increase in the heat production

027. Synthesis and release of thyroid hormones are controlled by:

**a) Anterior pituitary alone**

b) Hypothalamus alone

c) Blood levels of thyroid hormones alone

d) All of the above

028. Thyrotrophin stimulates the following processes:

a) Concentration of iodine by thyroid follicles

b) Iodination of thyroglobulin

**c) Release of thyroxine and triidothyronine**

d) De-iodination of thyroid hormones.

029. The rate of secretion of thyrotropin is controlled by:

a) The amount of iodine in the thyroid gland

b) The amount of thyroid hormones in the thyroid gland

**c) The concentration of thyroid hormones in blood**

d) The concentration of catecholamines in blood

030. Indications of thyroid hormones are following, EXCEPT:

a) Cretinism

b) Myxoedema

c) Hashimoto's disease

**d) For treatment of simple obesity**

031. The common side effect of thyroid hormones is following:

a) Increases in basal metabolic rate

b) Angina pectoris

c) Tremors

**d) Exopthalmos**

032. Currently used antithyroid drugs include the following, EXCEPT:

a) Propylthiouracil (PTU)

b) Diatrizoate sodium (Hypaque)

c) Methimazole (Tapazole)

**d) Potassium perchlorate**

033. In an area where goitre is endemic, which of the following drugs is used?

**a) Iodide 1 part in 100000**

b) Propylthiouracil 200 mg daily

c) Methimazole 40 mg daily

d) Any of the above can be used.

034. Iodide preparations can be used in following situations, EXCEPT:

a) In thyroid disorders

b) In granulomatous lesions e.g. Syphilis

c) As an antiseptic

**d) In iodism**

035. Daily administration of large doses (several milligrammes) of iodides to a thyrotoxic patient causes:

a) Involution of the thyroid which reaches a maximum in two weeks

b) Increased vascularity of the thyroid gland

c) Decreased storage of the colloid in the thyroid gland

**d) Thyroid gland growing firm and less vascular**

036. Radioiodines (I131 and I132) is suitable for:

**a) Elderly patients (over 45 years)**

b) Pregnant women

c) Nursing mothers

d) Younger patients

037. Radioiodines in the body emit:

**a) Mainly β radiations**

b) Mainly γ radiations

c) β and γ radiations equally.

d) Do not emit any radiation, therefore, are safe